

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number  
**WO 2005/059441 A1**

(51) International Patent Classification<sup>7</sup>: F23M 13/00, F23R 3/50

(21) International Application Number:  
PCT/EP2004/053524

(22) International Filing Date:  
15 December 2004 (15 12 2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
TO2003A 001013  
16 December 2003 (16 12 2003) IT

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(81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.

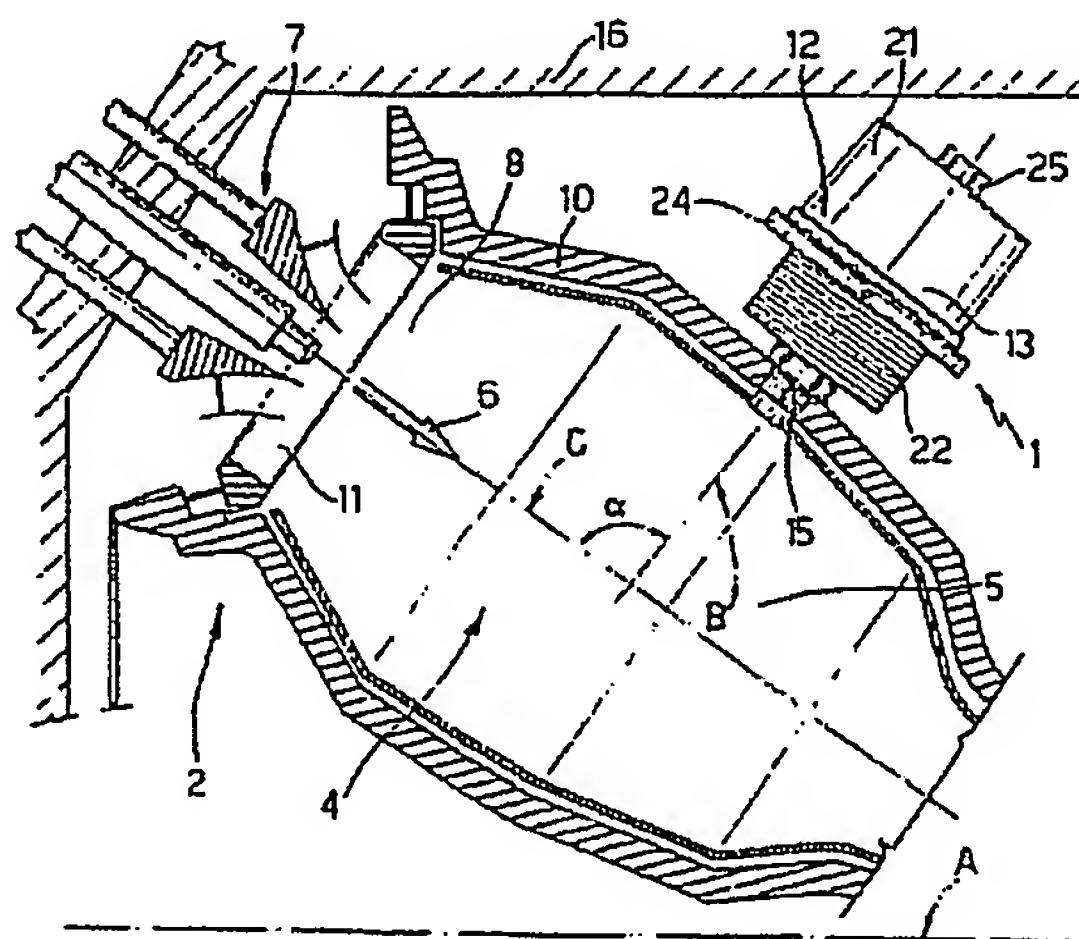
(84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),  
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,  
FR, GB, GR, HU, IE, IS, IT, LI, LU, MC, NL, PL, PT, RO,  
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,  
GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments

[Continued on next page]

(54) Title: A SYSTEM FOR DAMPING THERMO-ACOUSTIC INSTABILITY IN A COMBUSTOR DEVICE FOR A GAS TUR-  
BINE



(57) Abstract: A system (1) for damping thermo-acoustic instability in a combustor device (2) for a gas turbine, the combustor device including at least one combustion chamber (4), in particular of an annular type, and at least one burner (7) associated to said combustion chamber and mounted in a position corresponding to a front portion (8) set upstream of the combustion chamber; the damping system including at least one Helmholtz resonator (12) including a casing (13) defining inside it a pre-set volume and a neck for hydraulic connection between said pre-set volume and said combustion chamber, said neck being connected to one side of said combustion chamber at a distance from said front upstream portion thereof provided with said at least one burner. The casing of the resonator includes means for varying the aforesaid pre-set volume within a pre-set range and means for delivery of a cooling fluid.

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